

# FACTSHEET

## Plant Protection & Quarantine

United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

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## Asian Longhorned Beetle: Questions and Answers

### Q. What is an Asian longhorned beetle?

A. The Asian longhorned beetle (*Anoplophora glabripennis*) is a serious pest of hardwood trees that is not native to the United States. It is a large, bullet-shaped beetle, shiny and coal black with white spots. The beetle is about an inch long, and on its head are very long, horn-shaped feelers (antennae) that are black with white rings. These antennae are longer than the insect itself. The elongated feet are black with a whitish-blue upper surface. The beetle is native to China and is a pest there as well, with few natural enemies.

The white, wormlike immature beetles bore into tree trunks and branches, causing sap to flow heavily from wounds. Large amounts of frass (sawdust and other insect waste) accumulate at tree bases. Adult beetles leave round holes in the bark that are a half inch across or larger. Unseasonal yellowing of leaves or drooping leaves when the weather has not been dry are other indicators that the pest may be present. If left unchecked, the beetles can spread and kill trees quickly once they enter an area.

This beetle is just one of a number of exotic pests that present a serious threat to U.S. trees. Spruce bark beetle (*Ips typographus*) and Mediterranean pine engraver beetle (*Orthotomicus erosus*) are two other exotic wood-boring pests of concern. Inspectors from the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) search for all such pests on imports of solid wood products and solid wood packing materials, such as the pallets and crates that importers use to ship many goods.

### Q. Why should I care about the beetle?

A. Asian longhorned beetles, and all wood-boring pests such as the bark beetle that carries the fungus causing Dutch elm disease, are a serious threat to U.S. trees. The beetles bore deep into the tree and eventually kill it. Currently, there are no known treatments to fight the Asian longhorned beetle, so destruction of infested trees is the only option. Damage from the 1996 infestation in New York resulted in the removal of many trees and cost State and Federal governments over \$5 million. Asian longhorned beetles eat and live in many different hardwood species, and several other wood-boring pests threaten softwoods, such as pine and spruce.

### Q. What are the potential trade implications?

A. In 1997, China's total exports of agricultural and nonagricultural products to the United States were valued at \$72.8 billion (including \$10.3 billion for Hong Kong), an 8.4-percent share of total U.S. imports. It is estimated that between \$12 billion and \$16 billion in imports from China would be affected by the rule change—17 to 22 percent of the total imports from China.

### Q. How did these pests get here?

A. Systematic tracebacks of known infested shipments suggest that the Asian longhorned beetle hitchhiked here in solid wood packing materials, such as crates and pallets, from China. Other wood-boring pests can be introduced on similar materials from all over the world.

In the last 13 years, trade with China has increased tremendously, to \$62 billion a year up from \$5 billion in 1985. As a result, the volume of pallets and crates passing through ports of entry has grown exponentially as goods are generally shipped in wood packaging materials, which can conceal a broad spectrum of pests. Current regulations do not require these materials to be treated before export to the United States.

APHIS has a systematic approach for detecting these hitchhiking, wood-boring pests. When an Asian longhorned beetle is found in cargo at a port of entry, APHIS identifies the cargo shipment's intended destination, and officials inspect the storage facility and previous shipments that may have been imported from the same area.

**Q. Is the law being broken, or is it not strong enough?**

**A.** U.S. regulations currently state that solid wood packing material must be completely free of bark and appear free of live plant pests. The tremendous volume of cargo makes it impossible to visually inspect every item for evidence of bark or live plant pests. Some evidence suggests that certain exporters may be intentionally hiding bark and covering up insect hole damage in wooden crates.

**Q. Where have the beetles been found?**

**A.** As of August 6, 1998, beetles had been found in warehouses in: Hawthorne, Los Angeles, and South Gate, CA; Fort Lauderdale, FL; Martin Grove, IL; Indianapolis and Porter County, IN; Lansing and Warren, MI; Camden, Cream Ridge, Linden, Mahwan, New Brunswick, and Secaucus, NJ; Jamestown and Rochester, NY; Charlotte, NC; Cincinnati, OH; Lycoming County and Sinking Springs, PA; Charleston, SC; Houston, TX; Bellingham and Seattle, WA; and Sauk County, WI. There have been infestations outside of warehouses in Chicago, Du Page County, and Summit, IL; and Amityville and Brooklyn, NY.

**Q. What does APHIS do to exclude pests from the United States?**

**A.** APHIS stations Plant Protection and Quarantine (PPQ) officers at all U.S. ports of entry and in some foreign countries. These inspectors form the first line of defense against exotic plant and animal pests and diseases. All international passenger baggage, cargo, packages, mail, and conveyances are subject to inspection upon entry into the United States.

By monitoring pests and diseases in other countries, APHIS analyzes threats to U.S. agriculture and develops import restrictions on commodities based on the risk they present if introduced accidentally. Some commodities are cleared in their port of exit in special preclearance programs. Both domestic mail and passengers bound from Hawaii or Puerto Rico to the U.S. mainland are inspected, too. To encourage compliance, APHIS works to educate cooperators and stakeholders about the importance of excluding pests.

APHIS also works to develop treatments and rapid response techniques to fight outbreaks of unwanted pests as well as detection and monitoring programs to ensure that pests have not become established in the United States. Regular surveys and trapping projects are used to chart the presence of a pest or movement of existing pest populations.

**Q. How has APHIS enhanced inspection in light of problems with the Asian longhorned beetle?**

**A.** In an attempt to address the problem at U.S. ports of entry, APHIS has taken several steps including issuing pest alerts to port-of-entry personnel, conducting outreach to local importers, and targeting high-risk importers and Chinese exporters for outreach and increased inspections. APHIS has also focused on high-risk destinations and conducted secondary inspections and surveys at these sites. Finally, APHIS has conducted periodic blitzes at ports of entry, inspecting Chinese shipments with solid wood packing materials in an attempt to detect wood-boring pests and locate problem importers. Asian longhorned beetles and other wood-boring insects posing risk were found as a result of these activities.

**Q. What else is APHIS doing to prevent future infestations of these pests?**

**A.** On September 18, 1998, APHIS published an interim rule restricting the entry of solid wood packing material from China. APHIS will carefully consider any additional actions to be taken to prevent future infestations of the Asian longhorned beetle and similar pests. Federal law prohibits APHIS from discussing any future regulatory actions before they are published in the Federal Register.

APHIS is also heightening awareness about the Asian longhorned beetle among employees, industry, cooperators, and the public to help increase detections as well as conducting more thorough surveys in high-risk areas, as defined by incoming cargo.

An Asian longhorned beetle management team and scientific advisory panel will convene in September 1998 to discuss and review many issues related to detection and eradication of this insect.

**Q. How does APHIS survey for these pests?**

**A.** It is very difficult to detect these pests because they reside so deep in wood. In fact, the adult beetle is active only during the summer; it remains inside the trees the rest of the year. Presently, there is no trap to catch the Asian longhorned beetle, although other wood boring pests may be attracted to blacklight traps. There are also no known lures, such

as the pheromone lures used to bait Mediterranean fruit fly or gypsy moth traps. Research continues with our Chinese counterparts to develop lures and traps for this pest.

In the absence of a viable trap, inspectors survey areas by carefully examining trees for exit or entry holes or frass (sawdust and other insect waste) at the base of trees. These holes are usually about the size of a dime and are generally in the bottom or middle section of trees in perimeter areas. These holes can, however, be anywhere in any hardwood tree.

The difficulties in survey and detection for these wood-boring pests have led APHIS to reexamine import issues associated with solid wood packing materials from all parts of the world.

**Q. Does APHIS have an organized national survey program?**

**A.** APHIS is conducting extensive surveys in high-risk areas, such as ports and warehouses near detections of this pest. There are plans to seek additional funding under the national Cooperative Agricultural Pest Survey and emerging plant-pest line items to look for the Asian longhorned beetle and other wood-boring pests nationwide.

**Q. Do the recent finds and infestations of the Asian longhorned beetle mean exclusion efforts have failed?**

**A.** No inspection or exclusion program is foolproof. APHIS is consistently monitoring its work and developing better ways to respond to the challenges presented by the expanding number of international goods and travelers entering the United States. The force of approximately 1,350 PPQ inspectors, along with their cooperators, prevents introductions of pests each day.

APHIS has a systematic approach for finding these wood-boring pests, even with the increasing volume of trade. When an Asian longhorned beetle is found at a U.S. port of entry, other pallets and crates that were previously shipped to the same warehouse destination are more thoroughly examined, as are similar shipments entering that port. Because of this approach, searches in several of these warehouses have turned up beetles. These detections are dealt with as regulatory incidents—not as infestations—when surveys conducted in the vicinity around infested warehouses do not detect beetle populations in the environment. In these situations, the warehouses are considered extensions of the ports; therefore, the United States is still in the exclusion stage.

**Q. What steps are being taken to fight the beetle?**

**A.** Our exclusion efforts are the primary way to fight this beetle and similar pests. PPQ conducts increased visual inspections on high-risk cargoes and in high-risk areas, such as warehouses. PPQ officers refer infested shipments for fumigation. In many cases the infested packing material must be separated from the imported products and destroyed.

APHIS is taking other quarantine and eradication actions in infested areas in conjunction with State cooperators. These actions include imposing quarantines and conducting intensified visual inspections around confirmed sites to delimit infestations. In the areas where movement of suspect products is regulated, infested trees are removed and destroyed.

**Q. What is the role of fumigation in fighting these pests?**

**A.** Some shipments packed in solid wood packing materials can be fumigated to kill hitchhiking pests like the Asian longhorned beetle. Currently, those shipments found to be infested that can be fumigated are treated at U.S. ports of entry; however, the high volume of cargo precludes fumigating all imports shipped in solid wood packing materials. Some importers fumigate shipments on their own to guarantee smooth entry into the United States. Fumigating is an option for killing only hitchhiking pests. Once Asian longhorned beetles are established in the environment, there is no effective treatment other than destroying infested trees.

**Q. Is there an effective treatment to control or destroy these pests?**

**A.** Although there is a treatment for infested cargo, currently there is no effective treatment to destroy these pests once they infest an area without destroying a great number of trees. Infested trees must be removed, chipped, and then burned to destroy all life stages of any beetles remaining inside. APHIS is working with Chinese officials, both here and in China, on better control methods and treatment techniques. Researchers are also exploring better detection and trapping tools.

**Q. Can the United States stop importing goods from China to avoid these pests?**

**A.** No. Instead, APHIS is working with the Chinese authorities to prevent future infestations of the Asian longhorned beetle and similar pests, including restrictions on solid wood packing material from

China and imposition of treatment requirements on these materials before arrival in the United States. Federal law prohibits APHIS from discussing potential regulatory actions before they are published in the Federal Register.

APHIS is reviewing many issues that involve importation of solid wood packing materials. The agency will implement a strategy to mitigate the risks associated with these wood-boring pests, in addition to any interim action regarding the Asian longhorned beetle.

### **Additional Information**

For additional information about the Asian Longhorned Beetle contact APHIS' Plant Protection and Quarantine at (301) 734-8295. You can also get information about this and other APHIS programs on our Web page (<http://www.aphis.usda.gov>). For details specific to the Asian longhorned beetle, click on that bullet under "Hot Issues."

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